

U. S. NAVAL RADIOLOGICAL DEFENSE LABORATORY
SAN FRANCISCO 24, CALIFORNIA

20 February 1953 No. 262

"To be prepared for war is one of the most effectual means of preserving peace."

--George Washington.

NRDLER RECEIVES PATENT

Eugene Tochilin of Nuclear Radiation Branch and R. H. Davis, formerly with NRDL and now with U. C. Radiation Laboratory, have been issued Patent No. 2,624,846 for a new film badge dosimeter. This dosimeter consists of a series of metal filters placed in front of a conventional X-ray film used for monitoring purposes.

In the X-ray region below 250 KV the absorption characteristics of the filters are such that the ratio of density between two filters can be used to determine the energy of the X-rays striking the film. The use of this type of dosimeter makes possible an accurate determination of low energy X-ray dosage received from diagnostic X-ray machines. The conventional type gamma-ray film badge dosimeter is not adequate to measure radiation dosage in this region.

COMMUNICATIONS INSTRUCTIONS START NEXT WEEK

All Lab clerical personnel must attend one of the sessions of the Communications Instructions and have been notified by NRDL Notice of the meeting each is expected to attend. Supervisors are requested to notify ENS Carr, Ext. 2692, of any desired change.

Following is a schedule of sessions:

Tues., 24 Feb., 1:30 p.m. - Wed., 25 Feb., 10 a.m.
Thur., 26 Feb., 2 p.m. - Fri., 27 Feb., 9:30 a.m.

BIO-MED SEMINAR

Dr. Elly Jacobsen of Physiology-Psychology Branch, NRDL, will speak at the Biological & Medical Sciences Division Seminar on Thursday, 26 February, at 11 a.m. in Conference Room, 351-B. Her subject will be "Some Changes in the Endocrine Responses Following Irradiation."

DR. SANIGAR GRAVELY ILL

All the Laboratory will be distressed to hear that as the BULLETIN goes to press, Dr. Sanigar is still in serious condition. He has been in Franklin Hospital since last Friday.

FEDERAL EMPLOYEES RALLY

An affair honoring Charles E. Mayette, the National Vice-President of the American Federation of Government Employees, will be given in Yosemite Hall, 120 Page Street (near 12th and Market Streets) on Friday, 27 February, at 7:30 p.m. There is no charge--your employee card will admit you and a guest. Master of Ceremonies will be I. W. Kirkpatrick, President, Northern California AFGE Lodges, and speakers will include Messrs. Mayette, Harry Kranz, Director, 12th Civil Service Region; George Johns, Secretary, San Francisco Labor Council; Albert Bergesen, Civilian Personnel Director, 12th Naval District; Clifford E. Miller, Chief, Civilian Personnel Division, 6th Army; and Trill Price, Jr., Director of Organization, AFGE, Washington. Speeches will cover a number of subjects of interest to Civil Service employees.

FILMS TO BE SHOWN

On Tuesday, 24 February, at 1 p.m., Information Services will present 2 films at Rawlings Center Theatre. Interested Lab personnel who have time to attend are cordially invited.

1 p.m. - "Alliance for Peace" --This film deals with NATO organization --in color -- 50 minutes long.
1:50 p.m. - "Floating Fortress" --This film depicts a battleship at sea, operations, etc. --30 minutes long.

NEW CIVILIAN PERSONNEL

NUCLEONICS DIVISION

Frederick Otis Bartell, a Physicist, is a new addition to Instruments Branch. Mr. Bartell was born in Santa Ana. He graduated from Sonoma Valley Union High School in 1941, and served as a 1st lieutenant in the Army Air Force during the war. After his discharge he entered the University of California, graduating with a B.A. degree in physics and math in 1947. He has since attended U.C. graduate school. During his years in the service, Mr. Bartell studied meteorology at the Universities of Chicago and Washington. Before joining the staff of NRDL, he was a research assistant at the Radiation Laboratory in Berkeley. Mr. Bartell is unmarried and lives at 6015 Manchester Drive, Oakland, phone HUmboldt 3-8739. He formerly lived at International House in Berkeley and his interests still center on activities there.

Francis Lester Bouquet, a Physicist in Nuclear Radiation Branch, originally came from Enterprise, Oregon. He finished high school in Mill Valley in 1944 and received a B.A. degree in physics from the University of California in 1950. Mr. Bouquet served as a 1st lieutenant in the Army Signal Corps during World War II and also in the Korean campaign. His Master's Degree, also in physics, was obtained in 1953 from UCLA. Mr. Bouquet was employed at the Signal Corps Engineering Laboratory in Ft. Monmouth, New Jersey, before coming to NRDL. He, his wife, Melba, and year-old son, Timothy Alan, live at 124 Seminary Road, San Anselmo. His chief diversions are swimming and woodwork.

Clarence Sharp Cook, a Supervisory Physicist, is the new Head of Nuclear Radiation Branch. Born in St. Louis Crossing, Indiana, Dr. Cook received his entire education in his home state. He finished high school in Hope and obtained his B.A. degree from University, Greencastle. His graduate work was completed at Indiana University, with a Master's in 1942 and a Ph.D. in 1948. He served as a captain in the Army during World War II and now holds a commission as captain in the 10th Air Force. Dr. Cook's last place of employment was Washington University, St. Louis, where he was an assistant professor of physics. He, his wife, Marian, and children, Sherma and Wayne, live at 105B West Hillsdale Ave., San Mateo, phone FIreside 5-7077. Stamp collecting and amateur astronomy are Dr. Cook's hobbies.

BOND BUYING STILL LOW

Laboratory participation in Defense Bond buying has remained static for the past 2 months, staying right around 39.5%. To reach 65% we need 127 additional purchasers. No one will burst with pride over this record.

CHEM TECH WEDDING

What day could be more fitting for the consummation of our latest Laboratory romance than Valentine's? Laura Lino and Will Hendricks, both of Chemical Technology Division, were married at 11 o'clock on Saturday, 14 February, in the Star of the Sea Church in Sausalito. The bride was beautiful in a formal, white satin gown trimmed with lace and pearls. She wore a lace cap with fingertip veil and carried white orchids and camellias. Laura was attended by her sister as matron of honor and a friend as maid of honor, both in aquamarine taffeta dresses covered with net. Their flowers were rose colored camellias. Frank Hendricks, brother of the groom, was best man, and the ushers were two brothers of the bride, Manuel and George Lino, Joseph Gianetti, and John Wittman, also a member of Chem Tech. Samuel M. Lino gave his daughter away. Following the ceremony, a reception for 150 guests was held at the Lino home in Sausalito. Mr. and Mrs. Hendricks are spending a two weeks' honeymoon in the Southland. They will return to the Laboratory early in March.

ONE QUESTION FOR GEORGE WASHINGTON

Hear ye, Mr. Washington, hear ye!
How abundantly advanced art we
SCIENTIFICALLY!
With atoms, microns, and bomb
Phenomenology;
We've soared with rockets to heights of
Astrology;
Behold our splendid strides in
Physiology;
Our progress in physics, chemistry, and
Radiobiology.
BUT with all, whither bound art we--
May we offer one question for thy decree
(Knowing thou wouldst answer honestly)
HOW DO WE MEASURE UP TO THEE--
HUMANLY??

-- Mollie Ratner.

PHOTOGRAPHERS TAKE NOTE!

A photographic contest for service personnel on active duty will be held at the Pentagon in May. See next week's BULLETIN for further information.

TRANSPORTATION TROUBLES

<u>Rides Wanted</u>	
<u>San Francisco</u>	
Helen Cranfill (2638)	E. Sheffield (2659)
1734 Gough, vicinity Van Ness	Steiner & Jackson
<u>Ride or Car Pool</u>	
Dorothy Smith (2624)	Beth Lowey (2278)
524 Poplar Ave., Redwood City	556 Green, San Bruno
<u>Car Pool or Riders</u>	
James Basmajian (2672)	
755 Dolores St., nr. 21st, S.F.	

CHEM TECH MOVES COMPLETED

With the exception of Technical Developments Branch headed by Mike Hawkins, all of Chemical Technology Division is now in Bldg. 351-A.

<u>Division Office</u>		
Name	Room	Ext.
E. Tompkins	48	3087
J. Todd	47	3087
P. Gregg	47	3087
R. Lilly	46	3053
J. Sanderson	46	3053
F. Holden	48A	3087-3060
G. MacCabe	47	3087
V. Vandivert	46	3053

<u>Chemical Physics Branch</u>		
T. Goodale	22A	3123, 3132
J. Zaccor	42	3123
F. French	37A	3132
N. Farlow	37	3132
L. Poppoff	36	3131
E. Evans	41	3133
P. LaRiviere	34, 35	3213
R. Skow	20	3208
J. McWilliams	20	3208
S. Johns	20	3208
J. Wittman	41	3123
J. Washkuhn	37	3132
W. Hendricks	37A	3132
N. Wallace	36	3131
S. Ichiki	34, 35	3213
W. Finley	21	3208
C. Adams	41	3133

<u>Radiological Safety Branch</u>		
J. Law	32	3177

(Chem Tech Moves)

<u>Analytical & Standards Branch</u>		
W. Simon	11	3183
J. Seiler	12	3203
W. Shipman	12	3203
J. Pascual	14	3203
S. Foti	14	3203
M. Honma	15, 16	3204
J. O'Connor	15, 16	3204
L. Wish	24	3211
R. Rinehart	24	3211
A. Nice	25	3212
F. Falgiano	25	3212
R. Martin	25	3212

<u>Nuclear & Physical Chemistry Branch</u>		
N. Ballou	9	3184
L. Lino Hendricks	10	3183, 3184
E. Freiling	17	3205
L. Bunney	17	3205
S. Mayer	19	3205
E. Scadden	18	3206
A. Greendale	18	3206
H. Crosby	23	3207
M. Rowell	19	3209
V. Fischer	22	3209, 3012
R. Philips	19	3207
G. Avercamp	40	3132

<u>Applied Research Branch</u>		
L. Werner	4	3061
A. Swanson	5	3061, 3060
R. Chandler	45	3257
R. Fuller	45	3257
W. Lane	44	3256
J. Mackin	44	3256
L. Graham	44	3256
J. Lai	43	3124
S. Baum	43	3124
D. MacDonald	43	3124
W. Shelberg	6	3060
P. Zigman	49	3258
B. Singer	50	3259
J. Pestaner	50	3259
D. Sam	50	3259
W. Heiman	51	3095
R. Cole	51	3095
R. Stetson	52	3096
W. Perkins	53, 54	3096
C. Miller	52	3096
L. Gevantman	49	3258
D. Soule	53, 54	3096
T. Shirasawa	53, 54	3096
J. McCampbell	53, 54	3096
E. Schuett	53, 54	3096
H. Chan	53, 54	3096

THE NONPLUSATIONS OF NELLIE THE NRDLER

(Scene: An office in a plant working with Classified matter. On the right wall a row of windows, one of which is open. Beyond, we see a thick hedge. The office is furnished with the usual desks, a safe marked "For Classified Documents" and other standard equipment. Sadie Silligirl, a gum-chewing, thoughtless young thing, is typing busily. Her desk is strewn with documents marked Secret, Confidential, etc. Several of these papers have fallen to the floor, and one document rests on the windowsill, which bothers Sadie not at all.)

Sadie: Tee hee. I hope I can finish this letter soon because my boss is in a hurry for it. Tee hee. (While she is working, the sinister figure of H₂O, clothed in sinister black, is seen peering through the shrubbery. He smacks his lips and chortles when he sees the document on the windowsill, within easy reach.)

H₂O: Aha! I'm in business! Careless hands have made it possible for me to make away with this valuable information. (At this moment, Nellie The Nrdler steps into the room. She sees the situation at a glance, and dashing to the window slams it down hard on H₂O's fingers. (H₂O is caught like a rat in a trap.)

Nellie: Sadie, you silly girl! Don't you know that THE PROTECTION OF CLASSIFIED MATTER IS THE PERSONAL RESPONSIBILITY OF EVERY EMPLOYEE WHO USES IT?"

Sadie: (Whining)--I meant to secure it before leaving.

Nellie: (Ignoring the muffled cries of H₂O) CLASSIFIED MATTER SHOULD BE SECURED NOT ONLY AT THE CLOSE OF WORKING HOURS BUT AT ALL TIMES WHEN NOT PROPERLY STORED.

Sadie: (Sniffing) I wasn't thinking, I guess. (Which is the cue for Sam The Security Man to step into the room. He is clad in shining armor and beany cap, and carries a large anvil, symbolizing Strength and need for ballast. He opens the window and deals H₂O resounding blow with the anvil. H₂O vanishes swiftly over horizon holding his battered head.)

Sam: Your words hold great wisdom, O Nell. (Steps to footlights and declaims:)

Avoid the loss of Classified Matter
And H₂O will have no data.

Nellie to Sadie: Believe me, that's not idle chatter!

CIVIL SERVICE EXAMINATIONS

Examinations for SUPERVISORY positions in the field of machine operation are being offered with applications accepted by the Director, 12th Civil Service Region, 630 Sansome St., San Francisco, NOT LATER THAN THE CLOSE OF BUSINESS on 19 MARCH 1953. Following are the supervisory positions which will be INDEFINITE:

Alphabetic Card Punch, GS-4, 5, 6, 7
Bookkeeping Machine Unit, GS-4, 5
Mechanical Addressing Unit, GS-4, 5, 6, 7
Graphotype Machine Unit, GS-4, 5, 6
Addressing Machine Unit, GS-4, 5, 6
Calculating Machine Unit, GS-4, 5, 6, 7
Miscellaneous Duplicating Unit, GS-4, 5
Miscellaneous Office Appliance, GS-4, 5
Numeric Card Punch Operation, GS-4, 5, 6, 7
Tabulating Equipment Operation, GS-4, 5, 6, 7
Tabulating Machine Operation, GS-4, 5, 6, 7
Tabulation Planner & Tabulating Project Planner, GS-4, 5, 6, 7

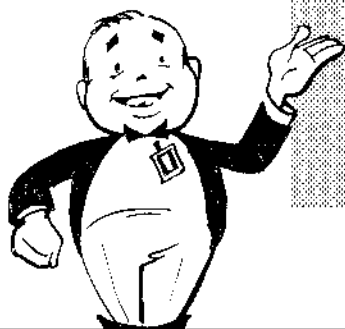
\$3175 a yr. \$3410 a yr. \$3795 a yr. \$4205 a yr.
(GS-4) (GS-5) (GS-6) (GS-7)

For further information contact Donna Tousley, Ext. 2698, Room 115, Bldg. 508.

ONE YEAR AGO AT USNRDL

Patent issued Dr. Werner....R. S. Alger and R. A. Levey published article in "Journal of Applied Physics"....J. T. Serduke received award for Benny Sugg on electric welding...A. L. Baietti and H. L. Seidelman appeared on Civilian Defense TV program....NRDL also had exhibit at Galileo High School in connection with same program....Lab assisted with SCOUT-O-RAMA...W. E. Strobe spoke at Damage Control School...Commendatory letter from Dr. Spilhaus on Lab participation in Nevada tests....LCDR Conner took over job of Administrative Director....New Book Shelf installed in Library....Bio-Med entertained many distinguished visitors....NRDLERS HANDBOOK started by Information Services.

New Employees A Year Ago:
LCDR C. L. Conner
Betty Sherfield, (Eng. Ser.)
Dorothy Smith (Tech Info)
Helen Louis (Info. Ser.)



NRDLERS' HANDBOOK

Code 12

INSTRUMENTS BRANCH (continued)

In contrast to the work of the Radiac Evaluation Section, the Radiac Development Section, headed by Mr. Arthur H. Redmond, is for the large part engaged in a number of definitive developmental problems programmed on a yearly or continuing basis by the Sponsoring Agency. This Section is attempting to improve the present utilization of the existing method of nuclear radiation detection as well as the development of new artifices and techniques. This includes most of the units of the radiac systems whether used as portable devices or as laboratory instruments.

For example, some of the problems which are actively being solved as those presented by:

1. Ion Chambers - These are to be smaller in size with greater current output per unit volume than those used by many instruments at the present time. The emphasis here has been the investigation of the amount of current produced in certain gases by the ionizing radiation and then reference of this to the standard air chamber by means of suitable corrective filters.

2. Phototubes - These used with appropriate crystals, which can change the energy of the radiation to be detected to light energy, will have the same current output as ion chambers having ten times the volume. In addition to the smaller size, it is hoped that the power demands will not be as rigorous as those imposed by many detectors in use at the present. The phosphor, or scintillant, which does the energy transforming is also being scrutinized both as to applicability and to packaging.

3. Vacuum Tubes - These are the new subminiature types which are proving their versatility in many applications. They are to be used for amplifying the small currents, less than one-billionth the amount used by most common electric lights, which are the output of the usual detector such as the ion chamber, Geiger tube or phototube. The special contribution by this program so far has been the simplified electrometer or high impedance input amplifier adopted by the Signal Corps in its miniature high intensity portable radiation detector and the drift free electrometer with no external zero set. This promises to do for the field man

engaged in the detection of radiation what the automatic shift has done for the average inexperienced automobile driver.

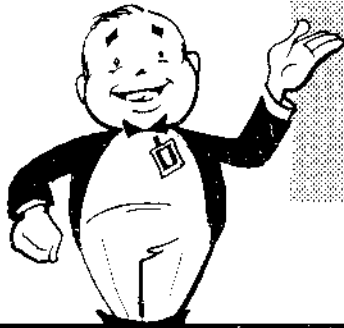
4. Power Supplies - These again will be smaller and more efficient than those presently used. A little device which depends on the vaporization of a small column of mercury appears to be the solution to the vibrator which is used in some cases for changing the direct current of batteries to the interrupted currents essential for use with a transformer for obtaining the high voltages needed for the operation of many types of detectors.

5. Transistors - These are semi-metals which have been used for many years in connection with the rectification of radio frequency currents but only now have they reached a stage of development where they can be used in the place of some vacuum tubes as oscillators and amplifiers. They are in especial demand because they do not require the filament battery which has been the limiting feature of most portable equipment in so far as prolonged use without servicing is concerned.

6. The Air Monitor - This instrument samples the air which may be breathed by personnel in confined spaces such as those found aboard ships or aircraft. It can be equipped with an alarm when the radioactive materials in the air reach a certain level, or in other cases merely making a record of the amount of radioactive materials present in the air.

7. Miniaturized Alarm Devices - These are small enough so that they will not encumber the user, say a member of a rescue squad and yet will warn him when the total radiation he has received reaches a certain level, or when the rate at which he is receiving radiation reaches a predetermined level.

In addition to the above problems, many more are at present being considered but not emphasized because those enumerated meet some specific bureau need or are part of some other long-range program. Within each of the problems mentioned, specific applications are an integral part of the approach used changing the demands upon the investigator both as to versatility and to intelligent experience. In each problem considered, the direct emphasis is on simpler devices that are more reliable and yet cheaper to construct and maintain.



NRDLERS' HANDBOOK

NOTEWORTHY NRDLERS

MEET -- "SALLY" JONES

"Sally" Jones photographed one of the most unusual pictures ever made in this area. Back in the early 40's when Sally was photographer on the DRYDOCK staff a Shipyard employee brought in a "talking chicken." Sally was given the assignment to photograph this phenomenon. Although there's no record of any words uttered, Mrs. Chicken did better than talk--she laid an egg, and at the physiological moment, Sally snapped the picture!

South Dakota born, Cecile D. Jones ("Sally" to us) spent her early years traveling throughout the country with her inventor father. Finally they settled in Seattle. Up through the 8th grade, Sally attended a school for the deaf with her brother who was thus afflicted. She then entered Seattle's Broadway High School, an art major, and all through her high school years she did free lance art work. Upon graduation she incorporated photography with art, and finally turned to it exclusively.

Sally's photographic studies included almost every scenic spot on the West Coast, from Alaska to Baja, California, countless construction shots of dams and power plants and a variety of novelty hobbies of celebrated people. These found ready markets in national magazines and newspapers--Time, Life, Fortune, and many others. Soon after she left school, Sally took a position as manager of a photographic studio in Seattle, and in 1943 went to work for the Army Engineers. A year later she joined SFNS as combination reporter-photographer for the DRYDOCK, remaining there for five years.

Primarily her work, especially during the war, was ship photography. There wasn't anything about a ship that Sally didn't photograph. A complete pictorial record had to be kept of every ship that came into the Shipyard--general overhaul and repair--completion of major construction work--re-gunning--everything concerned with ships. Especially interesting were the shots of damage--war, fire, and otherwise. These were important pictures and required careful attention to detail.

Sally has vivid memories of photographing tests of the big crane then being built. Periodic tests were made for smoothness of operation, so well controlled that the crane, with a weight of 850 tons, was lowered to touch an egg without breaking it. This test was recorded by five movie news-reel companies and photographs of it appeared in all Bay Area newspapers. Secondary photographic work assigned to Sally dealt with public relations, including distinguished visitors, awards, sports, special celebrations, human interest and a myriad of other items.

Sally did an occasional bit of work for the new Laboratory, later to become NRDL. This she found intriguing because it was different--a new and enticing field with unlimited possibilities. After all, when you photograph every angle of a ship there just isn't anything more to take and the novelty wears off! The Laboratory was another matter. Work there, she knew, would be interesting because you can't find an end.

In 1949 Sally transferred to NRDL. She has not been disappointed. "There is always something new and different," she said. We photograph medical and other scientific experiments, all types of instruments and apparatus." Sally is especially interested in medical and photomicrography photography. For relief from all this scientific photography there is some public relations work, training aids, and all types of reproduction work.

Sally has a great variety of interests running the gamut from upholstery to roller-skating. She keeps in trim for the vigorous physical demands of the photographer by being active in sports--swimming and golfing as well as skating. Her main hobby, however, is -- you guessed it -- photography, and like the sailor who rents a canoe on his day off, Sally always goes on a vacation with a camera under her arm.

NOTEWORTHY NRDLERS

MEET -- MR. HUNTER

Henry Hunter is a "repeat" employee of NRDL. He first came to the Laboratory in 1948 and worked with Chemistry Branch for over two years. During this time he wrote, in collaboration with Dr. Ballou, a Laboratory report on the computation of individual and total decay rates of all fission products, that is considered one of the finest contributions made by members of the NRDL staff.

Henry Fowler Hunter was born in Evanston, Illinois. When he was nine years old, his left arm was injured in an accident while playing on boxcars. While they waited for the doctor to drive from Chicago, gangrene set in. It was an anxious time--a race between the doctor and the progress of the infection. Although the doctor arrived in time to save Henry's life, the arm had to be amputated during the 8th operation of a total of eleven.

Henry and his two brothers received scholarships to Fountain Valley School in Colorado Springs where, despite his handicap, Henry took an active part in all school activities. In addition to his main academic interest in chemistry, he was a member of the student council, sang in the glee club which included much Gilbert and Sullivan, and played badminton and semi-professional tennis. After graduation in 1941, Hank received an academic scholarship to Haverford College, near Philadelphia, which he attended for a year. He left school to take a position with Pratt Whitney Aircraft Corporation in Hartford, Connecticut, remaining there for a year and a half. It was there that he first became interested in computation.

In June 1944, Hank entered Northwestern University, a sophomore, to major in mathematics and physics. He made a straight A average for the three years he was there, graduating with a B.S. degree in 1946, top man in his class. The University of California was his choice for graduate work and he entered on a fellowship in math. The following year he became a teaching assistant at the University, instructing in integral and advanced calculus, at the same time almost completing the course requirements for a Ph.D.

At the beginning of the second semester in 1948, he left the University to take his first position at NRDL with Chemistry. In addition to writing several scientific articles and reports, Henry invented a slide rule for computing radiation dosage received by exposure in a fission product field.

In September 1950 a new "science" attracted him, and he left the Laboratory to investigate "Dianetics, the modern science of mental health."

In October 1950 while embarking on this new work in Kansas City, he met Marjorie Edwards Clingan, and after a "long engagement" of five days they were married. Their son, Christopher Casey, was born in July 1951. Dianetics fell somewhat short of his expectations, so conceding that he had put his money (or part thereof) on the wrong horse, Hank gave it up and took a position as mathematician and aerodynamics researcher with Douglas Aircraft in Santa Monica. Nine months later an opportunity came from Northrop Aircraft in Hawthorne to operate "CPCC", the IBM machine similar to "Univac".

In June 1952 Henry returned to NRDL, this time with Military Evaluations. Recently, in addition to his work in operations analysis, Hank has been investigating NRDL research program needs of modern high-speed computing machinery and what equipment of this sort is available to the Laboratory. He spent a week at UCLA learning to code problems for BuStandards Western Automatic Computer, one of several monstrous electronic progenies of the famous ENIAC. He will continue to have additional duty advising the Associate Scientific Director on computing problems. Thus, part of his job is to keep abreast of the rapidly growing field of high-speed computing and to be available to Lab personnel as a consultant in choosing the most appropriate methods and equipment for any computational jobs, such as those of the recently developed "Monte Carlo" type computations which may be regarded as sort of computing experiments. Hank would like to know about any computing needs anyone in the Lab may have and is always delighted with the opportunity to "hold forth" on any mathematical subject.

When asked to relate some amusing incident in his life, Hank reported, after several days of deep thought, that nothing amusing had ever happened to him. This probably won't surprise those who are familiar with his extreme sobriety and Apollonian demeanor.

FORMAT OF A LETTER

- (A) CODE OF ORIGINATOR, SERIAL NO. (OPTIONAL), INITIALS OF DICTATOR AND TYPIST.
DO NOT USE FILE NO.
- (B) DATE STAMPED IN MAIL ROOM.
- (C) DO NOT USE ROUTE SHEET NO. OR FILE NO.
- (D) ARE YOU AUTHORIZED TO SIGN? SEE PARA. 420 USNRDL ADMINISTRATIVE MANUAL
- (E) OMISSION OF "TYPED BY" AND "DICTATED BY" SEE UPPER RIGHT CORNER

U. S. NAVAL RADIOLOGICAL DEFENSE LABORATORY
SAN FRANCISCO 24, CALIFORNIA

AIR MAIL 5 SPACES

SECURE INFORMATION

TO: 3-100-1
DDE:ce
27 Jan 1953

(A)

(B)

From: 2 Commanding Officer, U. S. Naval Radiological Defense Laboratory
To: 4 All clerk-typists and stenographers
Via: 3 (1) Code 3-286

Subj: 2 Naval letters; changes in

Ref: 3 (a) CO USNRDL ltr 3-100-1 of 7 Aug 1952

Encl: 2 (1) (SC) Navy Correspondence Manual, NAVEXOS P-388(Rev)

1.2 XX
XX
XX
XX

4 a.2 XX
XXXXXXXXXX.

8 (1) XX
XX
XX

12 (a) XX
XX
2. XX
XX
XXXXXX.

(D) 4
D. E. EFF
Head, Administrative Services Division
By direction

E Copy to:
Code 3-345 (with encl (1))

Enclosure (1) CO USNRDL ltr 3-100-1 of 27 Jan 1953

SECRETED

(For the convenience of Laboratory members this useful HANDBOOK supplement is reprinted on separate sheets. This will enable you to use them as a handy reference under desk glasses or as pull-outs.

Minor corrections have been made on the Format. Please note these in the HANDBOOK page published last week (13 February), so as to retain this chapter intact in your HANDBOOK folder.)

HOW TO ASSEMBLE
OUTGOING CORRESPONDENCE

